



## BANANA BAY CONDOMINIUM STRUCTURAL CONDITION ASSESSMENT SUMMARY 05.31.23

During this stage 1 condition assessment the building was evaluated in order to determine its current condition and if any structural repairs are necessary. A Licensed Professional Engineer visually and acoustically assessed the structure for concrete damage. This included all accessible decks, overheads, walls, columns, beams and guardrails. Coatings and concrete protection will also be included in the recommendations. Damage quantities and locations were recorded. This report details all types of damage found and repair recommendations. In general, the findings are as follows:

**BUILDING STRUCTURE** - The building structure evaluated consisted of the two main areas being the balconies and walkways/stairwells on the two mid-rise buildings:

**Balconies** - The damage on the balconies consisted mostly of beam/column damage. This is likely due to water and chloride intrusion due to the age, proximity to salt water plus the natural expansion/contraction which occurs in hollow-core buildings. Older windows, enclosures and doors will also contribute to water intrusion. Other damage found was edge and overhead damage on the exterior balconies as well as a few spot repairs. There was also cracked or delaminated stucco and a few cracks. All these items should be repaired. Most of the balconies have some sort of enclosure at the outer edge and there are varying floor covers and interior finishes which could be hiding damage. Overall, the balconies are in good condition.

The best enclosure option is one which is impact rated and has a guard integrated into the glass assembly (or the window itself could act as the guard but this would depend on condo rules and regs). This is a preferred method if unit owners are contemplating enclosure upgrades or replacement. In that scenario shutters would not be necessary.

**Walkway/Stairwells** – Each building contains three elevated walkways and two stairwells. The damage on the walkways was mostly edge and beam spalls. The 2300 building had large amounts of edge damage, some due to the old embedded guardrails which were not removed. These damages should be repaired. An upgrade option has been provided to replace all the edges in the 2300 building. This would ensure that more edge repairs are not needed every 5-10 years in the future.

**CONCRETE PROTECTION** – Once the concrete is repaired, the next step is protection. This is accomplished with protective coatings. Coatings are the first line of defense to protect against chloride and moisture intrusion which lead to reinforcement corrosion. The deck coatings on all the balconies are of varying type and age. It is typically recommended that all units have the same protective coating. In this case, since most of the balconies are enclosed and therefore almost considered “interior space” the varying floor coverings would be difficult to replace in uniformity. Carpet is never recommended unless the outer edge enclosure is completely watertight. The walkway/stair coatings are likely a textured acrylic, are in fair to good condition, and no action is recommended at this time. Repair areas will require new coating to be applied.



**BUILDING ENVELOPE** –For best overall protection, the building envelope should be addressed every 7 years, including paint and stucco repairs. This will include new exterior paint and sealing around all openings as well as any hairline cracks. This item goes hand in hand with concrete protection, detailed above.

**GUARDRAILS** – The aluminum guardrails/screen enclosures on the balconies are of varying type, age and condition. Some guards have been upgraded and replaced. The coating is beginning to delaminate on the older rails, and replacement is recommended during the next repair cycle. There are units with newer glass enclosures which are impact rated and have a guard integrated into the enclosure. This is a preferred method if unit owners are contemplating enclosure upgrades or replacement. There were a couple guardrails which are loose, either at one of the main stanchions or at the wall attachment. There were two unsafe balcony guardrails – Units 2320 and 2419 which require immediate repair. Some rails could not be accessed or assessed.

The structural portion of the guardrails on the walkways are of unknown construction and condition and therefore code compliance cannot be verified<sup>1</sup>. The guardrail is framed with wood and hence the primary structure could not be accessed or assessed. In order to make the recommended repairs to the walkway edges, the railings may need to be removed. Due to the safety of the building occupants, it is recommended to replace the guardrails with a code complaint aluminum railing system or a comparable system

DAMAGE AREAS & QUANTITIES														Notes
TYPE UNIT	CF DECK	CF EDGE	CF OVHD	CF FULL	CF BEAM/COL	EA SPOT	SF STUCCO	LF CRACK	LF RAIL	LF CANT	SF PREP	SF COATING		
2301	-	-	-	-	3.34	-	-	-	-	-	-	-	enclosure	
2307	-	-	0.31	-	-	-	-	-	-	-	-	-	enclosure	
2313	-	3.15	-	-	-	-	-	-	-	-	-	3.75	-	
2319	-	-	-	-	0.43	-	-	-	-	-	-	-	-	
2302	-	-	-	-	-	-	-	-	-	-	-	-	-	
2308	-	-	-	-	1.11	-	8.00	-	-	-	-	-	screen enclosure	
2314	-	-	-	-	-	-	-	-	-	-	-	-	-	
2320	-	-	-	-	-	-	-	-	-	-	-	-	unsafe rail	
2303	-	-	-	-	-	-	5.00	-	-	-	-	-	-	
2309	-	-	-	-	-	-	-	-	-	-	-	-	-	
2315	-	-	-	-	-	-	-	-	-	-	-	282.00	-	
2321	-	3.15	-	-	-	-	-	-	-	-	-	3.75	-	
2304	-	-	-	-	-	-	-	-	-	-	-	-	-	
2310	-	-	-	-	-	-	-	-	-	-	-	-	-	
2316	-	-	-	-	-	-	-	-	-	-	-	-	carpet	
2322	-	-	-	-	-	-	-	-	-	-	-	-	-	
2305	-	-	-	-	-	-	-	-	-	-	-	-	-	
2311	-	-	-	-	-	-	-	-	-	-	-	-	-	
2317	-	-	-	-	-	-	-	-	-	-	-	-	-	
2323	-	-	-	-	-	-	-	-	-	-	-	-	-	
2306	-	-	-	-	0.90	-	-	-	-	10.00	-	-	enclosure	
2312	-	-	-	-	0.35	-	-	-	-	-	-	-	.28 Sill	
2318	-	-	-	-	-	-	-	-	-	-	-	-	-	
2324	-	-	-	-	2.50	-	-	-	-	-	-	-	enclosure	

<sup>1</sup> Code complaint guardrails are 42" in height and all openings would reject a 4" sphere. Guardrails are required to resist a linear load of 50 pounds per linear foot and a concentrated load of 200 pounds.



DAMAGE AREAS & QUANTITIES (Cont'd)														
TYPE UNIT	CF DECK	CF EDGE	CF OVHD	CF FULL	CF BEAM/COL	EA SPOT	SF STUCCO	LF CRACK	LF RAIL	LF CANT	SF PREP	SF COATING	Notes	
2401	-	-	-	-	-	-	8.00	-	-	-	-	-	-	-
2407	-	-	-	-	-	-	-	-	-	33.50	-	-	-	cracked tile
2413	-	-	-	-	-	-	5.00	-	-	-	-	-	-	-
2419	-	-	-	-	1.13	-	-	-	-	-	-	-	-	unsafe rail
2402	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2408	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2414	-	2.10	-	-	-	-	-	-	-	-	-	-	2.50	-
2420	-	1.05	-	-	-	-	-	-	-	-	-	-	1.25	-
2403	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2409	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2415	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2421	-	-	-	-	-	-	-	-	-	-	-	-	-	cracked tile
2404	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2410	-	-	-	-	1.11	-	-	-	-	-	-	-	-	-
2416	-	-	-	-	-	2.00	-	-	-	-	-	-	-	-
2422	-	2.10	-	-	1.68	-	-	-	-	-	-	-	2.50	enclosure
2405	-	-	-	-	-	-	13.00	10.00	-	-	-	-	-	-
2411	-	-	-	-	1.11	-	-	-	-	-	-	-	-	-
2417	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2423	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2406	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2412	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2418	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2424	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Allowance							100.00							
SubTOTAL	-	11.55	0.31	-	13.65	2.00	139.00	10.00	-	43.50	-	-	295.75	

DAMAGE AREAS & QUANTITIES (cont'd)														
TYPE AREA	CF DECK	CF EDGE	CF OVHD	CF FULL	CF BEAM/COL	EA SPOT	SF STUCCO	LF CRACK	LF RAIL	LF CANT	SF OVERLAY	SF COATING	Notes	
WALK 2300-1	-	-	-	-	4.70	-	32.50	-	-	-	-	-	-	Beam replacment, 3.34
WALK 2300-2	-	24.15	-	-	2.61	8.75	10.00	-	-	145.00	-	-	28.75	-
WALK 2300-3	-	24.15	-	-	0.44	1.25	-	-	-	290.00	-	-	28.75	-
WALK 2300-4	-	37.80	-	-	-	-	-	-	-	145.00	-	-	45.00	-
WALK 2400-1	-	-	-	-	-	-	5.00	-	-	-	-	-	-	-
WALK 2400-2	-	5.25	-	-	0.84	-	5.00	-	-	145.00	-	-	6.25	-
WALK 2400-3	-	2.10	-	-	0.69	-	-	-	-	145.00	-	-	2.50	window sil
WALK 2400-4	-	2.10	-	-	-	-	-	-	-	145.00	-	-	2.50	-
Allowance							100.00	50.00						
Walk subTOTAL	0.00	95.55	0.00	0.00	9.28	10.00	152.50	50.00	0.00	1015.00	0.00	-	113.75	
TOTAL	0.00	107.10	0.31	0.00	22.93	12.00	291.50	60.00	0.00	1058.50			409.50	